

ABSTRACT OF THE DISCLOSURE

In the operation of a computer, a plurality of bytecode or pseudocode instructions, at least some of the pseudocode instructions comprising a plurality of machine code instructions, are stored in a computer memory. For each of a plurality of tasks or jobs to be performed by the computer, a respective virtual thread of execution context data is automatically created. The virtual threads each include (a) a memory location of a next one of the pseudocode instructions to be executed in carrying out the respective task or job and (b) the values of any local variables required for carrying out the respective task or job. At least some of the tasks or jobs each entails execution of a respective one of the pseudocode instructions comprising a plurality of machine language instructions. Each of the tasks or jobs are processed in a respective series of time slices or processing slots under the control of the respective virtual thread, and, in every context switch between different virtual threads, such context switch is undertaken only after completed execution of a currently executing one of the pseudocode instructions.